

IPEDS Survey Methodology: Web Content

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Imputation Procedures

All components of the annual IPEDS collection are subject to imputation for nonresponse—both institutional (unit) nonresponse and item nonresponse—should any exist within the component. With the exception of the IC survey component, all items in each component are eligible for imputation. Within the IC component, only cost of attendance and other institutional charges data are eligible for imputation.

Only institutions with the following characteristics are candidates for imputation or to serve as donors:

- The institution must participate in Title IV student financial aid programs.
- The institution must be currently active in IPEDS.
- The institution must not be a child institution (a child institution's data are reported by another institution, referred to as the "parent").

In addition to these general criteria, the following conditions also need to be satisfied by institutions in the indicated component for the institution to be considered as an imputee or donor. Note that three survey components (IC, HR, and Finance) do not require that any additional criteria be satisfied.

- For the AL component, the institution must be degree-granting and must have library expenditure greater than zero.
- For the ADM component, the institution must not have an open admissions policy.
- For the Completions and E12 components, the institution must not be an administrative office, and the institution must not be new to the IPEDS universe.
- For the EF component, the institution must not be an administrative office.
- For the Gr and GR200 components, the institution must not be an administrative office, and the institution must have enrolled full-time, first-time degree/certificate-seeking students for the appropriate cohort year.
- For the OM component, the institution must be degree-granting and must have enrolled degree/certificate-seeking undergraduate students during the entering cohort year.
- For the SFA component, the institution must not be an administrative office, and the institution must have enrolled undergraduate students in data year.

IPEDS may apply one of three imputation methods for both unit and item nonresponse, depending on the data available. These methods are described briefly below.

Carry Forward: This method is used for institutions that have reported component data in prior years. In this procedure, a prior year's data are used as a substitute for current data. Adjustments for year-to-year changes are applied, based on the values of respondent institutions within the imputee institution's imputation group. Imputees that have complete data in either of the previous two years receive Carry Forward imputation.

Nearest Neighbor: The Nearest Neighbor procedure identifies data related to the key statistics of interest for each component (the distance measure), then uses those data to identify a responding institution similar to the nonresponding institution and uses the respondent's data as a substitute for the nonrespondent's missing items. Depending upon the component and the relationships between the distance measure and the key statistics of interest, an adjustment to account for dissimilarity between the imputee and donor may be applied.

Group Median: A median institution is identified within each imputation group, and all imputee institutions that cannot be imputed via the Carry Forward or Nearest Neighbor methods receive the median institution's reported data as their imputed values. No adjustments are made to the donor institution's data prior to assigning it to the imputee.

Information on response rates and any imputations conducted for each component are included in NCES documentation accompanying the provisional data release of each collection period.